

1 Claim 22 (New)

2 The apparatus of claim 21 wherein said agent sensitive coating is substantially transparent
3 to electromagnetic radiation.

1 Claim 23 (New)

2 The apparatus of claim 21 wherein said agent sensitive coating is substantially reflective
3 to electromagnetic radiation.

1 Claim 24 (New)

2 The apparatus of claim 22 wherein said bimaterial cantilever is chosen from the
3 bimaterial group of Au-Si, Pd-Si, Au-Si₃N₄, and Pd-Si₃N₄.

1 Claim 25 (New)

2 The apparatus of claim 23 wherein said bimaterial cantilever is chosen from the
3 bimaterial group of Au-Si, Pd-Si, Au-Si₃N₄, and Pd-Si₃N₄.

REMARKS

On 15 September 2006, a Notice of Non-Compliant Amendment was sent to the Applicants indicating that Claims 3 and 4 have been designated as being cancelled however their text was still left intact. Consequently, this created an ambiguity in the Examiner's perception as to precisely what the Applicants intended. This ambiguity being: "did Applicants intend that

Serial No. 10/750,626; Navy Case No. 84930

Claims 3 and 4 be cancelled or be left for further examination?"

To lay this perceived ambiguity to rest, Applicants have allowed the lines for Claims 3 and 4 to remain and have followed these in both instances by the bracketed word "cancelled". Furthermore, the text of these claims have been removed as presented in this response. It is Applicants' intention to have Claims 3 and 4 cancelled from further consideration by the Examiner.

Applicants thank the Examiner for providing a return phone call clarifying this issue.

In all other regards, this amendment is the same as presented before.

Prior to this amendment, Claims 1-18 stood pending wherein Claims 5-18 stood withdrawn. In the Office Action of 24 January 2006, Claims 1-4 stand rejected.

By this amendment, Claim 1 has been amended to include all the limitations of dependent claim 3. Claim 3 has therefore been canceled. Claim 4 has also been canceled by this amendment. New claims 19-25 have been added. A typographical change has been made to the Specification.

Claims 1-2 and 19-25 presently stand for examination.

Patent Office Rejection of Claims 1-4 under 35 USC 102(b) over Roberson

The Examiner indicates that Roberson discloses a corner-cube reflector having three reflective surfaces and comprising at least one reflective surface of a bimaterial that changes between a substantially planar shape and a curved shape upon exposure to an agent of interest. The Examiner asserts that in Roberson the bimaterial cantilever is chosen from the bimaterial group pf Au-Si. Cited by the Examiner to support this latter assertion is column 7, lines 65-67 and column 8, lines 54-57. The Examiner indicates that (in Roberson) an agent sensitive coating is disposed on a surface of the bimaterial cantilever 34 of Roberson, wherein the agent sensitive

coating is substantially transparent, as illustrated by ray R2 of Roberson or is reflective, as illustrated by ray R1 of Roberson, to electromagnetic radiation.

Applicants' Response to the Rejection of Claim 1-4 under 35 USC 102

Applicants have combined original Claims 1 and 3 and have canceled Claim 4.

Applicants have added Claims 19-25. Applicants traverse this rejection with respect to Claims 1-3 as they now stand and as may be applied to new Claims 19-25.

Applicants have closely read the disclosure of Roberson. In particular, Applicants have noticed that the Examiner's reference to column 7, lines 65-67 does not appear to correspond to an Au-Si bimaterial layer nor does there appear to be any reference within this cited material indicating an agent sensitive coating disposed on the surface of the bimaterial cantilever 34.

Lines 65-67 on column 7 of Roberson indicates using a polysilicon layer 32 on a substrate wherein the polysilicon layer 32 is used in the formation of a polysilicon curvable plate member 30 that has a metal layer 34 on it that is stated as being preferably titanium or chromium.

Applicants find nowhere within the cited material an "agent sensitive coating" that is substantially transparent to electromagnetic radiation as Applicants originally and still claim. The R2 shown in Roberson's FIG. 3 and as explained in Roberson's column 7, lines 34-45 indicate that this ray is a reflected electromagnetic ray. Any "agent sensitive coating" that may exist within Roberson's embodiment described is not transparent to the incident electromagnetic radiation but is instead reflective of it, albeit in a direction that is not in alignment with the electromagnetic radiation as it is incoming upon Roberson's described embodiment.

It is well understood, that for a claimed invention to be anticipated, each and every

element of that invention must be shown in a reference.

A claim is anticipated only if each and every element of the claim is found in a single reference. M.P.E.P. § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987)). “The identical invention must be shown in as complete detail as is contained in the claim.” M.P.E.P. § 2131 (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226 (Fed. Cir. 1989)).

Because the teachings of Roberson fail to disclose each and every element of Applicant’s claims, in this instance the use of an agent sensitive coating that is substantially transparent to electromagnetic radiation, the rejection of Applicant’s now-amended claim 3 is considered improper. Removal of this rejection is therefor respectfully requested.

Finally, there is no description within Roberson of an “agent sensitive coating” that bonds to an agent of interest as Applicants have described and are presently claiming and no “agent sensitive coating” that bonds to a chemical or biological species to thereby cause a bimaterial cantilever to alter its shape between a substantially planar shape and a curved shape, as Applicants now claim and as supported in their Specification as originally written at page 4, lines 6-8 minimum.

Accordingly, Applicants assert that all claims remaining in their application for examination present subject matter that is not shown or taught by the art cited. Allowance of these claims is respectfully requested.

Serial No. 10/750,626; Navy Case No. 84930

Any inquiry concerning this case should be directed to Applicants' attorney, Mr. Peter Lipovsky at (619) 553-3824.

Respectfully submitted,

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